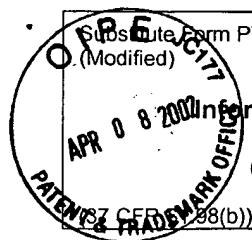


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U.S. Department of Commerce
Patent and Trademark Office

Attorney's Docket No.
10454-017001

Application No.
10/006,492

**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

Applicant
Lawrence R. Toll et al.

Filing Date
December 3, 2001

Group Art Unit
1645

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U.S. Patent Documents

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
MPA	AA	6,128,587	10/03/2000	Sjolander			
	AB						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AC							
	AD							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
MPA	AE	Baldi, P. et al., "Hidden Markov Models of Biological Primary Sequence Information", <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 91, pp. 1059-1063; February 1994.
	AF	Barrett, C. et al. "Scoring Hidden Markov Models", <i>CABIOS</i> , Vol. 13, No. 2, pp. 191-199; 1997.
	AG	Brakch, N. et al. "Favourable Side-Chain Orientation of Cleavage Site Dibasic Residues of Prohormone in Proteolytic Processing by Prohormone Convertase 1/3", <i>Eur. J. biochem.</i> Vol. 267, pp. 1626-1632; 2000.
	AH	Brown, M. et al., "Using Dirichlet Mixture Priors to Derive Hidden Markov Models for Protein Families", <i>Proc. of First Int. Conf. on Intelligent Systems for Molecular Biology</i> , pages 47--55, Menlo Park, CA, July 1993. AAAI/MIT Press.
	AI	Bucher, P. et al., "A Flexible Motif Search Technique based on Generalized Profiles", <i>Computers and Chemistry</i>, Vol. 20 pp. 3-24, January 1996. draft not publication
MPA	AJ	Chesneau, V. et al., "N-Arginine Dibasic Convertase (NRD Convertase): A Newcomer to the Family of Processing Endopeptidases", <i>Biochimic</i> Vol. 76, pp. 234-240; Paris, March 1994.
	AK	Chou, K-C. et al., "Studies on the Specificity of HIV Protease: An Application of Markov Chain Theory", <i>Journal of Protein Chemistry</i> , Vol. 12, No. 6, pp. 709-724; 1993.
	AL	Chou, K-C., "Prediction of Human Immunodeficiency Virus Protease Cleavage Sites in Protein", <i>Analytical Biochemistry</i> Vol. 233, pp. 1-14; 1996.
	AM	Chou, K-C. et al., "Predicting Human Immunodeficiency Virus Protease Cleavage Sites in Proteins by a Discriminant Function Method", <i>Proteins: Structure, Function, and Genetics</i> Vol. 24, pp. 51-72; 1996.
x	AN	Eddy, SR., "Hidden Markov Models", <i>Current Opinion in Structural Biology</i> , Vol. 6, pp. 361-365, 1996.
	AO	Eddy, SR., "Profile Hidden Markov Models", <i>Bioinformatics</i> , Vol. 14, review of HMMs 1998.
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	AQ	Eddy, SR., "Multiple Alignment Using Hidden Markov Models", <i>Proc. Third Int. Conf. Intelligent Systems for Molecular Biology</i> , AAAI Press, Menlo Park, pp. 114-120. PostScript; 1995.

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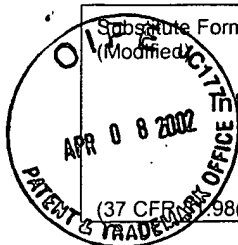
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Information Disclosure Statement by Applicant (Use several sheets if necessary)				Applicant Lawrence R. Toll et al.	
(37 CFR 1.98(b))				Filing Date December 3, 2001	Group Art Unit T645 / 631

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AR	Grate, L. et al., "Tutorial: Stochastic Modeling Techniques: Understanding and Using Hidden Markov Models" University of California, Santa Cruz, CA, pp 1-34, June 1996.
MPA	AS	Grice, JA. Et al., "Reduced Space Sequence Alignment", <i>CABIOS</i> , Vol. 13, pp. 45-53, 1997.
	AT	Grundy, WN., et al., "Meta-MEME: Motif-Based Hidden Markov Models of Protein Families", to appear in <i>Computer Applications in the Biosciences</i>, 1997.
MPA	AU	Hughey, R. et al., "Hidden Markov Models for Sequence Analysis: Extension and Analysis of the Basic Method", Reprint <i>CABIOS</i> Vol. 12, pp. 95-107, 1996.
	AV	Hughey, R. et al., "SAM : Sequence Alignment and Modeling Software System", <i>Technical Report UCSC-CRL-96-22</i> , University of California, Santa Cruz, CA, July 1998..
	AW	Hughey, R., "Massively Parallel Biosequence Analysis.", <i>Technical Report UCSC-CRL-93-14</i> , University of California, Santa Cruz, CA, April 1993.
	AX	Jagla, B. et al., "Adaptive Encoding Neural Networks for the Recognition of Human Signal Peptide Cleavage Sites" <i>BIO</i> , Vol. 16, No. 3, March 2000.
	AY	Karchin, R. et al., "Weighting Hidden Markov Models for Maximum Discrimination", <i>Bioinformatics</i>, Vol. 14, pp. 772-782, 1998.
MPA	AZ	Karchin, R., "Hidden Markov Models and Protein Sequence Analysis" from http://www.cse.ucsc.edu/research/compbio/ismb99.handouts/KK185FP.html printed from website March 14, 2002.
	AAA	Karplus, K. et al., "Hidden Markov Models for Detecting Remote Protein Homologies", <i>BIO Informatics</i> , Vol. 14, No. 10, pp. 846-856; October 1998.
	ABB	Karplus, K. et al., "Predicting Protein Structure Using Hidden Markov Models", <i>Proteins: Structure, Function, and Genetic</i> , Suppl., pp. 134-139; September 1997.
	ACC	Krogh, A. et al., "Hidden Markov Models in Computational Biology. Applications to Protein Modeling", <i>J. Mol. Biol.</i> Vol. 235, pp. 1501-1531; February 1994.
	ADD	Krogh, A. et al., Predicting Transmembrane Protein Topology with a Hidden Markov Model: Application to Complete Genomes" <i>Journal of Molecular Biology</i> Vol 305, No. 3, pp.567-580; 2001.
	AEE	Ladunga, I., "Large-Scale Predictions of Secretory Proteins from Mammalian genomic and EST sequences" <i>Analytical Biotechnology</i> , pp. 13-18; 2000.
	AFF	Lockless, SW. et al. "Evolutionarily Conserved Pathways of Energetic Connectivity in Protein Families", <i>Science</i> Vol. 286, pp. 295-299; October 1999.
	AGG	McClure, MA. et al., "Parameterization studies for the SAM and HMMER methods of hidden Markov model generation", <i>Proc. Fourth Int. Conf. Intelligent Systems for Molecular Biology</i>, pp. 155-164, UNLV, Las Vegas.
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	AII	Nielsen, H. et al. "Prediction of Signal Peptides and Signal Anchors by a Hidden Markov Model", <i>American Association for Artificial Intelligence ISMB</i> , pp. 122-130; 1998.
	AJJ	Nielsen, H. et al. "Machine Learning Approaches for the Prediction of Signal Peptides and Other Protein Sorting Signals", <i>Protein Engineering</i> Vol. 12, No. 1, pp. 3-9; January 1999.
	AKK	Paracel, "Hidden Markov Model", from http://paracel.com/publications/hmm_white_paper.html printed from website March 14, 2002.

Examiner Signature <i>Marianne P. Allen</i>	Date Considered 8/11/03
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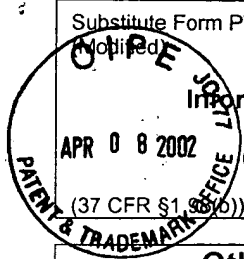
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Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
MPA	ALL	Rabiner, LR., "A Tutorial on Hidden Markov Models and Selected Applications in Speech Recognition", <i>Proceedings of the IEEE</i> , Vol. 77, No 2, pp.257-186; February 1989.
↓	AMM	Rholam, M. et al., "Role of Amino Acid Sequences Flanking Dibasic Cleavage Sites in Precursor Proteolytic Processing. The Importance of the First Residue C-terminal of the cleavage site", <i>Eur. J. Biochem.</i> Vol. 227, pp. 707-714; February 1995.
	ANN	Tarnas, C. et al., "Reduced space hidden Markov model training", <i>Bioinformatics</i>, Vol. 14 pp. 401-406, 1998.
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	APP	
	AQQ	
	ARR	
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(37 CFR 1.98(b))

Applicant

Lawrence R. Toll et al.

Filing Date

December 3, 2001

Group Art Unit

~~1645~~ 1631**U.S. Patent Documents**

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
MPA	BA	6,314,434 B1	11/06/01	Shigemi et al.			
	BB	5,873,052	02/16/99	Sharaf			
	BC	5,701,256	12/23/97	Marr et al.			
	BD	5,568,563	10/22/96	Tanaka et al.			
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Foreign Patent Documents or Published Foreign Patent Applications

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							Yes	No
	BL							
	BM							
	BN							
	BO							
	BP							

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Applicant
Lawrence R. Toll et al.Filing Date
December 3, 2001Group Art Unit
1631**U.S. Patent Documents**

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date if Appropriate
MAH	CA	US 6,438,496 B1	Aug. 20, 2002	Yoshida <i>et al.</i>	702	19	Aug. 20, 1998
	CB						
	CC						
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	CK						

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							Yes	No
	CL							
	CM							
	CN							
	CO							
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